



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,724	11/24/2003	Mitsuro Atobe	9319K-000606	2761

27572 7590 04/25/2006

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303

EXAMINER
----------

DHINGRA, RAKESH KUMAR

ART UNIT	PAPER NUMBER
----------	--------------

1763

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/720,724

Applicant(s)

ATOBE ET AL.

Examiner

Rakesh K. Dhingra

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,5 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,5 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1763

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed 01/30/2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because no English abstract has been supplied for the following Korean document:

- 1) 2001-0062654 (July 2001).
- 2) Communication from Korean Patent Office regarding related application.
- 3) Further, US document number 2001-019807, listed at Reference number 2 under US patent documents appears to be incorrect, since no such document exists in US database.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Specification***

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly

Art Unit: 1763

those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

1) The amended does not have any reference to "the mask having electrodes" which is an important aspect of the invention in the present application and which may please be added (keeping the abstract within the limit of 150 words).

### ***Response to Arguments***

Applicant's arguments with respect to claims 3-5, 13 have been considered but are moot in view of the new ground(s) of rejection as explained hereunder.

Applicant has amended claims 3, 5, 13 by adding new limitations and deleted claim 4.

New reference by Yamada et al (US PG PUB No. 2001/0019807) has been found that when combined with Oberg (US patent 3,330,252) reads on limitations of claims 3, 13.

Accordingly claims 3, 13 have been rejected under 35 USC 103 (a) as explained below.

New reference by Hirayanagi (US Patent 6,433,346) has been found that when combined with Oberg (US Patent 3,330,252) reads on limitations of claim 5. Accordingly claims 5 has been rejected under 35 USC 103 (a) as explained below.

### ***Claim Rejections - 35 USC § 103***

Art Unit: 1763

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 3, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oberg (US Patent No. 3,330,252) in view of Yamada et al (US PG PUB No. 2001/0019807).**

Regarding Claims 3,13: Oberg teaches a mask vapor deposition apparatus (Figures 1, 2) comprising:

an electrostatic attraction mechanism (using voltage source 30) for attracting a subject 26 for deposition using electrostatic attraction;

a deposition mask 22 brought into close contact with a face of a substrate (deposition subject) 26 for depositing a deposition material in a predetermined pattern, the face being reverse to that of the substrate (deposition subject) 26 attracted by electrostatic chucking mechanism;

Art Unit: 1763

an crucible (evaporation source) 18 for evaporating the deposition material; and  
a bell jar (vacuum chamber) 10,  
wherein the electrostatic attraction mechanism, mask, and crucible (evaporation source)  
are at least placed in the bell jar (vacuum chamber) 10 [Column 1, line 56 to Column 2,  
line 68).

Oberg does not explicitly teach the mask being made of silicon.

Yamada et al teach an evaporation apparatus (Figures 6A, 6B) that uses deposition  
mask 100 made of silicon for depositing organic material on a substrate 10 for making  
organic EI displays (paragaphs 0059 –0061).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the  
invention to modify Oberg's apparatus to use deposition mask made of silicon as taught  
by Yamada et al to enable make highly accurate deposition mask in which no deflection  
occurs especially for use in manufacture of EL displays (paragraph 0036).

**Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oberg (US  
Patent No. 3,330,252) in view of Hirayanagi (US Patent No. 6,433,346).**

Regarding Claim 5: Oberg teaches all limitations of the claim (as explained above)  
except mask made of silicon and electrodes on the mask.

Hirayanagi teaches an apparatus (Figure 1) that includes a reticle (mask) 90 made of  
silicon and held by a reticle chuck 100. Hirayanagi further teaches that reticle chuck 100  
has electrodes 103,103' that are "on" the reticle (mask) 90 and those when powered  
provide electrostatic force for clamping reticle 90 to the reticle chuck 100 (column 7,  
lines 20-35).

Art Unit: 1763

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide electrodes on the mask as taught by Hirayanagi in the apparatus of Oberg to provide reticle holding that is especially suitable for mask made from silicon (column 4, lines 5-25).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh K. Dhingra whose telephone number is (571)-272-5959. The examiner can normally be reached on 8:30 -6:00 (Monday - Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571)-272-1435. The fax phone

Art Unit: 1763

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rakesh Dhingra



Parviz Hassanzadeh  
Supervisory Patent Examiner  
Art Unit 1763